REMARKS

In the claims

Claim 1 has been amended to recite that the inhibition is via administration of "a small molecule drug." Support for this amendment can be found in the specification at, inter alia, page 1, lines 19-22, page 13, lines 16-19, and original Claims 9 and 10. As a result of this amendment Claims 9 and 10 have been canceled.

Claims 4, 5, and 8 have been amended to depend from Claim 1. The language of these claims has been amended to reflect proper antecedency.

Claims 11 and 17 have been amended to reflect proper antecedency to base Claim 1.

Claim 13 has been amended to recite a smaller list of carcinomas.

Support for new Claim 39 can be found in the specification at page 41, lines 13-15.

Support for new Claims 40 and 41 can be found in the specification at, *inter alia*, page 24, line 4.

Support for new Claim 42 can be found in the specification at page 42, lines 4-6.

No new matter has been added by these amendments; therefore, examination is requested on the claims as amended herewith.

Since two claims were canceled and four were added, Applicants enclose fees for two additional claims.

Response to Restriction Requirement

In the Restriction Requirement, the Examiner restricted the application and required an election of one of following twenty six groups under 35 U.S.C. § 121 and 372.

Group I Claims 37-38, drawn to the molecule or ligand IBT4282, which lessens the proliferation when contacted with proliferating cells and a composition comprising such;

Group II Claims 37-38, drawn to the molecule or ligand IBT6432, which lessens the proliferation when contacted with proliferating cells and a composition comprising such;

Group III Claims 37-38, drawn to the molecule or ligand IBT11830, which lessens the proliferation when contacted with proliferating cells and a composition comprising such;

Group IV Claims 37-38, drawn to the molecule or ligand IBT12008, which lessens the proliferation when contacted with proliferating cells and a composition comprising such;

Group V Claims 37-38, drawn to the molecule or ligand IBT13131, which lessens the

proliferation when contacted with proliferating cells and a composition comprising such;

Group VI Claims 37-38, drawn to the molecule or ligand IBT14664, which lessens the proliferation when contacted with proliferating cells and a composition comprising such;

Group VII Claims 37-38, drawn to the molecule or ligand IBT15154, which lessens the proliferation when contacted with proliferating cells and a composition comprising such;

Group VIII Claims 2-5 and 8-16, drawn to a method of treating or preventing a cancer comprising inhibiting the interaction between Hec1 and Nek2 using a small molecule drug, thereby lessening cell proliferation;

Group IX Claims 2-5 and 8-16, drawn to a method of treating or preventing cancer comprising inhibiting the interaction between Hec1 and Nek2 using an antibody, thereby lessening cell proliferation;

Group X Claims 2-5 and 8-16, drawn to a method of treating or preventing a cancer comprising inhibiting the interaction between Hec1 and Nek2 by reducing the level of Hec1 and Nek2, thereby lessening cell proliferation;

Group X1 Claims 2-5 and 8-16, drawn to a method of treating or preventing a cancer comprising inhibiting the interaction between Hec1 and Hint1 using a small molecule drug, thereby lessening cell proliferation;

Group X11 Claims 2-5 and 8-16, drawn to a method of treating or preventing a cancer comprising inhibiting the interaction between Hec1 and Hint1 using an antibody, thereby lessening cell proliferation;

Group XIII Claims 2-5 and 8-16, drawn to a method of treating or preventing a cancer comprising inhibiting the interaction between Hec1 andHint1 by reducing the level of Hec1 and Hint1, thereby lessening cell proliferation;

Group XIV Claims 2-5, 8-10, and 17-20, drawn to a method of treating or preventing a stenosis comprising inhibiting the interaction between Hec1 and Nek2 using a small molecule drug, thereby lessening cell proliferation;

Group XV Claims 2-5, 8-10, and 17-20, drawn to a method of treating or preventing a stenosis comprising inhibiting the interaction between Hec1 and Nek2 using an antibody, thereby lessening cell proliferation;

Group XVI Claims 2-5, 8-10, and 17-20, drawn to a method of treating or preventing a

stenosis comprising inhibiting the interaction between Hec1 and Nek2 by reducing the level of Hec1 and Nek2, thereby lessening cell proliferation;

Group XVII Claims 2-5, 8-10, and 17-20, drawn to a method of treating or preventing a stenosis comprising inhibiting the interaction between Hec1 and Hint1 using a small molecule drug, thereby lessening cell proliferation;

Group XVIII Claims 2-5, 8-10, and 17-20, drawn to a method of treating or preventing a stenosis comprising inhibiting the interaction between Hec1 and Hint1 using an antibody, thereby lessening cell proliferation;

Group XIX Claims 2-5, 8-10, and 17-20, drawn to a method of treating or preventing a stenosis comprising inhibiting the interaction between Hec1 and Hint1 by reducing the level of Hec1 and Hint1, thereby lessening cell proliferation;

Group XX Claims 22, and 24-27, drawn to a method of identifying a compound that reduces interaction between Hec1 and Nek2 comprising (a) contacting Hec1 and Nek2 in the relative absence of the compound, (b) contacting Hec1 and Nek2 in the relative presence of the compound, determining the relative amount of interaction between Hec1 and Nek2 in (a) and (b) by immunoprecipitation and comparing the relative amount of interaction wherein is the presence of the compound causes less interaction than the relative absence of the compound, the compound is identified as a compound that reduces an interaction between Hec1 and Nek2;

Group XXI Claims 23-27, drawn to a method of identifying a compound that reduces interaction between Hec1 and Hint1 comprising (a) contacting Hec1 and Hint1 in the relative absence of the compound, (b) contacting Hec1 and Hint1 in the relative presence of the compound, determining the relative amount of interaction between Hec1 and Hint1 in (a) and (b) by immunoprecipitation and comparing the relative amount of interaction wherein is the presence of the compound causes less interaction than the relative absence of the compound, the compound is identified as a compound that reduces an interaction between Hec1 and Hint1;

Group XXII Claims 28-31, drawn to a method of identifying a molecule that interferes with a function of Hec1 and inhibits cell proliferation comprising contacting a sample comprising cells with the molecule wherein a decrease in function relative to a sample

comprising proliferating cells not contacted with the molecule identifies the molecule that inhibit proliferation of the cells;

Group XXIII Claims 28-31, drawn to a method of identifying a molecule that interferes with a function of Nek2 and inhibits cell proliferation comprising contacting a sample comprising cells with the molecule wherein a decrease in function relative to a sample comprising proliferating cells not contacted with the molecule identifies the molecule that inhibit proliferation of the cells;

Group XXIV Claims 28-31, drawn to a method of identifying a molecule that interferes with a function of Hint1 and inhibits cell proliferation comprising contacting a sample comprising cells with the molecule wherein a decrease in function relative to a sample comprising proliferating cells not contacted with the molecule identifies the molecule that inhibit proliferation of the cells;

Group XXV Claims 28-31, drawn to a method of identifying a molecule that interferes with a function of Hec1, Nek2 and Hint1 and inhibits cell proliferation comprising contacting a sample comprising cells with the molecule wherein a decrease in function relative to a sample comprising proliferating cells not contacted with the molecule identifies the molecule that inhibit proliferation of the cells; and

Group XXVI Claims 32-35, drawn to a method of identifying a potential ligand of a Hec1 protein comprising synthesizing the potential ligand, contacting the potential ligand with a Hec1 protein domain-containing protein and determining whether the potential ligand binds to the Hec1 protein domain-containing protein.

As required in response to this Action, **Applicants elects, with traverse, Group VIII,** Claims 2-5 and 8-16, drawn to a method of treating or preventing a cancer comprising inhibiting the interaction between Hec1 and Nek2 using a small molecule drug, thereby lessening cell proliferation. **Claim 1, which is a generic claim, has been amended to recite the use of a small molecule drug. Thus, after the amendments herein, Claims 1-5, 8, and 11-16, as well as new Claims 39-42 read on the elected Group.**

Applicants respectfully request that the restriction requirement be reconsidered. For a restriction requirement to be proper, the Examiner must satisfy the following two criteria: (1) the

existence of independent and distinct inventions (35 U.S.C. § 121); and (2) that the search and examination of the entire application cannot be made without serious burden on the Examiner. M.P.E.P. § 803 provides:

> If the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions. (*Emphasis added.*)

Applicants submit that the Examiner has not shown that the second requirement has been met. Specifically, there has been no showing that it would be a *serious burden* to search and examine the twenty-six groups together or at least a subset of these twenty six groups.

For the reasons stated above, Applicants respectfully assert that restriction of the claims as set forth by the Examiner would be contrary to promoting efficiency, economy and expediency in the Patent Office and further point out that restriction by the Examiner is discretionary (M.P.E.P. § 803.01). Examining all of the claims together would eliminate the necessity of prosecuting multiple, separate, yet intimately related applications. Thus, Applicants respectfully request that all of the claims of this application be examined together. Consequently, reconsideration and modification or withdrawal of the restriction requirement is requested.

Species Election

The Examiner has further requisitioned election of a species should Applicants elect one of Groups VIII-XIII, which Applicants have. That is, the Examiner required an election of a single species from among the different carcinomas of Claim 13, different sarcomas of Claim 15, retinoblastoma, glioblastoma, **or** neuroblastoma. As required, Applicants elected the following species: "Breast Cancer." This species election is made with traverse for the same reasons outlined above.

CONCLUSION

Applicants have elected Group VIII and the species of "breast cancer" with traverse. Claims 1-5, 8, 11-13, and 39-42 read on the elected Group and elected species.

Enclosed herewith is payment in the amount of $1,165.00, which includes the Five-Month Extension of Time fee and the fee for two additional dependent claims. This amount is

believed to be correct; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

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CERTIFICATE OF EFS-WEB TRANSMISSION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence – including any items indicated as attached, enclosed, or included – is being transmitted by EFS-WEB on the date indicated below.

/Christopher L. Curfman/	September 29, 2008
Christopher L. Curfman	Date: